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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,552	06/16/2006	Keith Baker	NL031507	7825
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EXAMINER				
SHIVERS, ASHLEY L				
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2419				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/596,552

Applicant(s)

BAKER, KEITH

Examiner

ASHLEY L. SHIVERS

Art Unit

2419

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:
 - On page 1, insert --Field of the Invention-- before line 1.
 - On page 1, inset --Background of the Invention-- before line 9.
 - On page 4, insert --Brief Description of the Drawings-- before line 1.
 - On page 4, insert --Detailed Description-- before line 15.
 - On page 7, line 4, replace --functionally-- with --functionality--.Appropriate correction is required.

Claim Objections

2. Claims 5-14 are objected to because of the following informalities:

--In accordance with MPEP 2111.04, the claim language of claims 5-14 suggests or makes optional but does not require steps to be performed. In *Hoffer v. Microsoft Corp.*, 405 F.3d 1326, 1329, 74 USPQ2d 1481, 1483 (Fed. Cir. 2005), the court held that when a "whereby" clause states a condition that is material to patentability, it cannot be ignored in order to change the substance of the invention." *Id.* However, the court noted (quoting *Minton v. Nat 'l Ass 'n of Securities Dealers, Inc.*, 336 F.3d 1373, 1381, 67 USPQ2d 1614, 1620 (Fed. Cir. 2003)) that a "whereby clause in a method claim is not given weight when it simply expresses the intended result of a process step positively recited." *Id.* Although these claims involve the "adapted for" clause, the above reasoning for objection remains the same.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Masahiro Maki, Seiji Hamada, Masamitsu Tokuda, Yoshifumi Shimoshio and Nobuo Kuwabara's **"Home Information Wiring System using UTP Cable for IEEE1394 and Ethernet System"**, hereinafter referred to as Maki.

Regarding claim 1, Maki discloses a method for distributing both IP signals (Ethernet signals) and non- IP signals (IEEE 1394 or AV) in an Ethernet based network, wherein the Ethernet based network comprises UTP cabling (UTP-CAT5; See page 922) comprising a number of wires (UTP-CAT5 contains four twisted pairs in which for Ethernet and IEEE only two twisted pairs are used; See page 922, lines 9-13), the method comprises distributing (receiving) said non-IP signals through a signal path based on wires comprised in said cabling and not being used for distributing said IP signals (In accordance with the Ethernet specification, terminals 1,2,3, and 6 of the RJ-45 connector will be used for Ethernet signals. Terminals 1,2,7, and 8 are allocated for IEEE1394.b., therefore terminals 7 and 8 can be the receiving terminals for the IEEE1934 signal since it is known that the terminals 1 and 2 are used for transmitting; See page 922 lines 28-31).

Regarding claim 5, Maki discloses a communication system (**home networking system; See Fig. 2**) distributing both IP signals (**Ethernet signals**) and non- IP signals (**IEEE 1394 or AV**) in an Ethernet based network, wherein the communication system comprises UTP cabling (**UTP-CAT5; See page 922**) comprising a number of wires (**UTP-CAT5 contains four twisted pairs in which for Ethernet and IEEE only two twisted pairs are used; See page 922, lines 9-13**), where the wires comprised in said cabling, which are not being used for IP signals, are adapted for distributing said non-IP signals (**In accordance with the Ethernet specification, terminals 1,2,3, and 6 of the RJ-45 connector will be used for Ethernet signals. Terminals 1,2,7, and 8 are allocated for IEEE1394.b., therefore terminals 7 and 8 can be the receiving terminals for the IEEE1934 signal since it is known that the terminals 1 and 2 are used for transmitting; See page 922 lines 28-31**).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-3 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maki in view of Kunisch (**U.S. Patent No. 7,260,211**), hereinafter referred to as Kunisch.

Regarding claim 2, Maki teaches a method according to claim 1, but fails to teach of an adaptation being performed on either said signal path or said non-IP signals before distributing said non-IP signals on wires comprised in said cabling.

Kunisch teaches of performing an adaptation on the signal path or non-IP signals before distributing on said wires (**The modem is used for adapting an impedance on the speech path; See Abstract lines 1-5 and col. 2, lines 3-6).**

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Maki to include adapting on the signal path or non-IP signals taught by Kunisch in order to decrease the level of disturbance.

Regarding claim 3, Maki further fails to teach a method according to claim 2, wherein an adaptation performed on said signal path comprises adapting the impedance of said signal path.

Kunisch teaches of the adapting of impedance of said signal path (**See Abstract lines 1-5 and col. 2, lines 3-6).**

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Maki to include adapting an impedance on the signal path or non-IP signals taught by Kunisch in order to decrease the level of disturbance.

Regarding claim 6, Maki teaches a communication system according to claim 5, but fails to teach of said system comprising means for performing an adaptation on either said signal path or said non-IP signals before distributing said non-IP signals on wires comprised in said cabling.

Kunisch teaches of a means for **(modem)** performing an adaptation on said signal path or said non-IP signals **(The modem is used for adapting an impedance on the speech path; See Abstract lines 1-5 and col. 2, lines 3-6).**

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the communication system of Maki to include a means for adapting on the signal path or non-IP signals taught by Kunisch in order to decrease the level of disturbance.

Regarding claim 7, Maki further fails to teach a communication system according to claim 6, wherein said means for performing an adaptation on either said signal path or said non-IP signals comprise means for adapting the impedance of the signal path for distributing said non-IP signal.

Kunisch teaches of a means for performing an adaptation **(modem)** on either said signal path or said non-IP signals comprise means for adapting the impedance of the signal path **(See Abstract lines 1-5 and col. 2, lines 3-6).**

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the communication system of Maki to include a means for adapting an impedance on the signal path or non-IP signals taught by Kunisch in order to decrease the level of disturbance.

7. Claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maki in view of Liu (**U.S. Patent No. 6,404,276**), hereinafter referred to as Liu.

Regarding claim 4, Maki teaches a method according to claim 3, but fails to teach of said adaptation being achieved by active adaptation of the signal propagation by control of driver strength.

Liu teaches of adapting the control of the driver strength (**The pull up resistors and rail voltage are configured to convert the current output from the line driver to a voltage and to modify the signal to have a Vpp that is appropriate for the transmission medium that is to be used; See col. 9, lines 56-60.**)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Maki to include adapting the control of the driver strength taught by Liu in order to prevent overutilization of the transmission medium which would lead to signal degradation.

Regarding claim 8, Maki teaches a communication system according to claim 7, fails to teach of said adaptation being achieved by active adaptation of the signal propagation by control of driver strength.

Liu teaches of adapting the control of the driver strength (**The pull up resistors and rail voltage are configured to convert the current output from the line driver to a voltage and to modify the signal to have a Vpp that is appropriate for the transmission medium that is to be used; See col. 9, lines 56-60).**

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Maki to include adapting the control of the driver strength taught by Liu in order to prevent overutilization of the transmission medium which would lead to signal degradation.

8. Claims 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maki in view of Itay et al. (**U.S. Patent No. 6,483,903**), hereinafter referred to as Itay in further view of Kunisch.

Regarding claim 9, Maki teaches a communication system according to claim 5, wherein the system comprises a gateway (**adapter; See Fig. 2**) for receiving non-IP signals (**the adapter receives the signals; See Fig. 2 and page 922, col. 2, lines 1-4**).

Maki fails to teach of the system comprising a gateway performing an adaptation and transmitting said non-IP signals.

Itay teaches of a gateway modem (See Fig. 1B) and transmitting said processed non-IP signals via the Ethernet based network (The gateway modem is connected to the Ethernet switch via connections pairs which can be used for transmitting and receiving, it would have been obvious that the gateway modem could interchangeable with the home networking adapter; See col. 5, lines 43-46).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Maki to include a gateway taught by Itay in order to provide the component that performs the operations.

Maki in view of Itay still fails to teach of performing an adaptation.

Kunisch teaches of a gateway (modem) for:

performing an adaptation on either said signal path or said non-IP signals before distributing said non-IP signals on wires comprised in said cabling (The modem is used for adapting an impedance on the speech path; See Abstract lines 1-5 and col. 2, lines 3-6),

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the communication system of Maki in view of Itay to include adapting on the signal path or non-IP signals taught by Kunisch in order to decrease the level of disturbance.

Regarding claim 12, Maki teaches a gateway (**adapter**; See Fig. 2) adapted to be used in a communication system according to claim 6, wherein the gateway is adapted for:

receiving non-IP signals (**the adapter receives the signals**; See Fig. 2 and page 922, col. 2, lines 1-4).

Maki fails to teach of the gateway performing an adaptation and transmitting said non-IP signals.

Itay teaches of a gateway modem (See Fig. 1B) and transmitting said processed non-IP signals via the Ethernet based network (**The gateway modem is connected to the Ethernet switch via connections pairs which can be used for transmitting and receiving, it would have been obvious that the gateway modem could interchangeable with the home networking adapter**; See col. 5, lines 43-46).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the gateway of Maki to include a gateway taught by Itay in order to provide the component that performs the operations.

Maki in view of Itay still fails to teach of performing an adaptation.

Kunisch teaches of a gateway (**modem**) for:

performing an adaptation on either said signal path or said non-IP signals before distributing said non-IP signals on wires comprised in said cabling (**The modem is used for adapting an impedance on the speech path**; See Abstract lines 1-5 and col. 2, lines 3-6),

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the gateway of Maki in view of Itay to include adapting on the signal path or non-IP signals taught by Kunisch in order to decrease the level of disturbance.

9. Claims 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maki in view of Fang et al. (U.S. PGPub 2005/0114496), hereinafter referred to as Fang in further view of .

Regarding claim 10, Maki teaches a communication system according to claim 5, wherein the system but fails to teach of the system comprising a router and its functions.

Fang teaches of a home networking system comprising a router, switch and modem ([0034] lines 11-13).

Maki in view of Fang fails to teach of the router routing non-IP signals, enabling the non-IP signals to be broadcasted to all endpoints in the Ethernet network.

Mobley teaches of routing the non-IP signals and enabling the non-IP signals to be broadcasted to all end points in the Ethernet network (The combined forward signals are then transmitted downstream via fiber through a digital network 420, which may include routers and switches, or other such devices that possess the means to route and process the individual wavelengths carrying the analog signals using conventional analog techniques; See [0016] lines 8-13).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the communication system of Maki in view of Fang to include a router for routing the non-IP signals and enabling the non-IP signals to be broadcast to all end points taught by Mobley in order to communicate the traffic to the appropriate devices in the network.

10. Claims 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maki in view of the prior art of Koenig et al. (**U.S. Patent No. 6,879,603**), hereinafter referred to as Koenig.

Regarding claim 11, Maki teaches a communication system according to claim 5, but fails to teach of the system comprising a switch to transmit the non-IP signals and switch between non-IP signals and IP signals.

Koenig teaches of a switch (**See Fig. 3**):

transmitting said non-IP signals and switching between said non-IP signals and said IP signals (**Originating T-1 channels are connected to destination T-1 channels as telephone or data calls are routed between locations by the switch; See col. 3, lines 21-24**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the communication system of Maki to include transmitting said non-IP signals and switching between said non-IP signals and said IP signals taught by Koenig in order to communicate the information to the receiving devices.

11. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mobley et al. (U.S. PGPub 2002/0157114), hereinafter referred to as Mobley.

Regarding claim 10, Maki teaches a communication system according to claim 5, wherein the system but fails to teach of the system comprising a router and its functions.

Fang teaches of a home networking system comprising a router, switch and modem ([0034] lines 11-13).

Maki in view of Fang fails to teach of the router routing non-IP signals, enabling the non-IP signals to be broadcasted to all endpoints in the Ethernet network.

Mobley teaches of routing the non-IP signals and enabling the non-IP signals to be broadcasted to all end points in the Ethernet network (The combined forward signals are then transmitted downstream via fiber through a digital network 420, which may include routers and switches, or other such devices that possess the means to route and process the individual wavelengths carrying the analog signals using conventional analog techniques; See [0016] lines 8-13).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the communication system of Maki in view of Fang to include a router for routing the non-IP signals and enabling the non-IP signals to be broadcast to all end points taught by Mobley in order to communicate the traffic to the appropriate devices in the network.

12. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maki in view of Kunisch in further view of Koenig.

Regarding claim 14, Maki in view of Kunisch fails to teach of a switch to be used in a communication system according to claim 6, to transmit the non-IP signals and switch between the non-IP signals and IP signals.

Koenig teaches of a switch:

transmitting said non-IP signals and switching between said non-IP signals and said IP signals (**Originating T-1 channels are connected to destination T-1 channels as telephone or data calls are routed between locations by the switch; See col. 3, lines 21-24).**

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the communication of Maki in view of Kunisch to include a switch for transmitting said non-IP signals and switching between said non-IP signals and said IP signals taught by Koenig in order to communicate the information to the receiving devices.

Conclusion

13. Any response to this action should be **faxed** to (571) 273-8300 or **mailed** to:

Commissioner of Patents,
P.O. Box 1450
Alexandria, VA 22313-1450

Hand delivered responses should be brought to:
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ASHLEY L. SHIVERS whose telephone number is (571) 270-3523. The examiner can normally be reached on Monday-Thursday 8:00-6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chirag Shah can be reached on (571) 272-3144. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Ashley L Shivers/
Examiner, Art Unit 2419
1/2/2008

/Chirag G Shah/
Supervisory Patent Examiner, Art Unit 2419